

**WHAT IS CLAIMED IS:**

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1       1. A system for dynamically monitoring stability of  
2 manufacturing equipment, comprising:

3           1 a process executor requesting a plurality of semi-  
4 manufactured products processed by the manufacturing  
5 equipment to be inspected at a first sampling rate and  
6 receiving a plurality of inspection results;

7           2 a data processor analyzing the inspection results from  
8 the process executor to determine a second sampling rate;

9           3 a device storing the second sampling rate; and

10          4 a controller receiving the second sampling rate from the  
11 storage device and changing the first sampling rate of the  
12 inspection requested by the process executor to the second  
13 sampling rate.

1           5 2. The system as claimed in claim 1 further comprising  
2 an input device connected to the storage device for  
3 inputting of a third sampling rate, wherein the controller  
4 receives the third sampling rate from the storage device and  
5 changes the first sampling rate of the inspection of the  
6 processed semi-manufactured products guided by the process  
7 executor to the third sampling rate.

1           8 3. The system as claimed in claim 1, further comprising  
2 a display connected to the storage device, displaying the  
3 first and the second sampling rates.

1       4. The system as claimed in claim 1 wherein the  
2 manufacturing equipment etches the semi-manufactured  
3 products.

1       5. The system as claimed in claim 1 wherein the  
2 manufacturing equipment forms an oxide layer on the semi-  
3 manufactured products.

1       6. The system as claimed in claim 1 wherein the process  
2 executor is a Manufacturing Executive System.

1       7. The system as claimed in claim 1 wherein the  
2 inspection of the semi-manufacturing products is non-  
3 destructive.

1       8. The system as claimed in claim 1 wherein one of the  
2 semi-manufactured products is a semi-manufactured  
3 semiconductor device.

1       9. The system as claimed in claim 8 wherein the  
2 semiconductor device is a wafer.

1       10. The system as claimed in claim 1 wherein one of  
2 the inspection results is a thickness of an oxide layer.

1       11. The system as claimed in claim 1 wherein one of  
2 the inspection results is an etching depth.

1       12. The system as claimed in claim 1 wherein the data  
2 processor is an SPC analyzing software application.

1           13. The system as claimed in claim 1 wherein the  
2 controller is a server.